



04 Innovate to Empower

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“If we teach today’s students as we taught yesterday’s, we rob them of tomorrow.”

- John Dewey

Needs of children are plenty and they continually move from general to specific and group to individual. Some of their virtues like immense curiosity, vivid imagination, deep interest in exploring their immediate environment, sponge-like assimilation, long span of attention in what interests them, non-stop questioning, physical energy and many more, always intrigue me and make me wonder how such young bodies are gifted with such dynamism.

I notice that when students follow their own interests, independent identity or a “sense of self” is established. This is true of all children no matter how old they are or what backgrounds they come from. If provided with a conducive environment and diverse opportunities, favourable for nurturing intellectual ability and unparalleled capabilities, they are sure to develop life skills because everything they do or learn seems to have a bearing on their future.

This only further strengthens my belief that students require facilitators, not teachers, to guide them through their learning process.

Looking back at my own experience, I started my first job little realising that I would be required to teach math compulsorily. My jitters started. I remembered not being a very good student of Mathematics. I took time to grasp new concepts and understand their relevance to daily life. In retrospect, it struck me that, teaching has long been mostly teacher-centric, using the traditional “Chalk and Talk” approach, directing children towards gaining knowledge needed just for

scoring marks. This methodology failed to recognise the fact that learners can be visual, auditory or kinaesthetic. I, for one, was surely not an auditory learner. Hence it did not help me much. My assessment made me shift my focus to include skill building in my teaching to help students enjoy learning. In order to keep abreast of the shift and to raise the bar towards such changes and challenges, I consciously introduced a lot of innovative teaching techniques that focussed on developing problem-solving and critical thinking skills in students.

It also opened my eyes to the fact that students need to be developmentally ready and this will depend not on their chronological age but on the first hand knowledge they get for expanding their intellect. It is very essential that all educators understand this difference. It’s never late to learn.

The minute I understood this, I was able to enjoy Math to the extent of authoring books for Cambridge.

Capabilities apart, children must also understand what, why and how, things happen out there in the society to which they belong and to which they need to give back. Society is not an arena merely to contest capabilities between people to find out who is better but a balance between many individuals with varying interests, ideas, opinions, limitations and let downs. Our teaching should help students recognise this equilibrium and not just develop their academic capabilities. One is considered successful not when he is standing alone as a literate person but only when

he is sensitive and is able to bond with a nurturing network of people, no matter what their strengths, weaknesses and abilities are. The universal truth is, if we do not prepare children for inclusion and acceptance by peers early, they will be paying a great price to strike the balance later.

Today we are at the cross roads with greater awareness about the need for flexible education based on life skills. It is very essential that students learn to deal effectively with the demands and challenges of life and the society tomorrow.

My personal experiences and strong conviction about what empowers students, has made me implement skill based teaching / learning programmes using innovative teaching methods across the curriculum in our school. To facilitate this, we work with a classification of learning objectives, dividing learning into lower order and higher order skills. While acquiring KNOWLEDGE, UNDERSTANDING AND APPLICATION, are considered lower order skills, the ability to ANALYSE, SYNTHESISE AND EVALUATE are considered part of higher order skills. While it is essential to have the lower order skills, it is necessary to inculcate the higher order skills to empower every child.

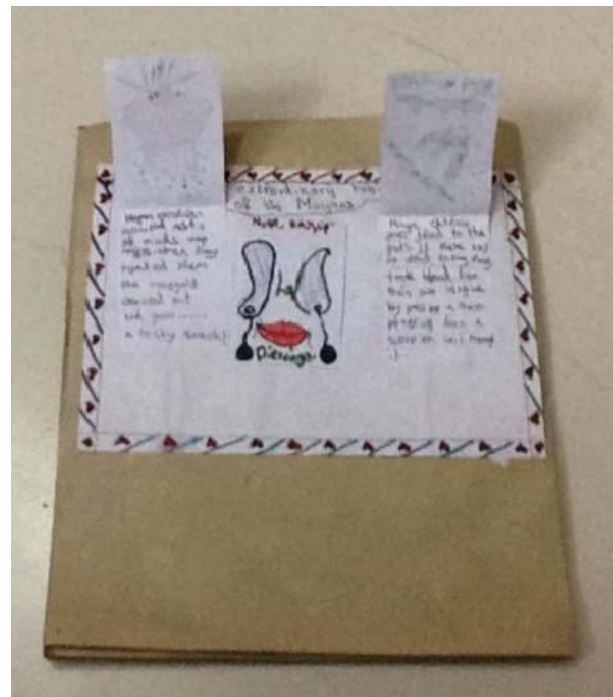
One may ask what innovative teaching is. To me, any teaching that can clearly communicate the teller's thoughts to the listener without difficulty and make one apply the learning both in known and unknown situations, thus strengthening oneself, is innovative teaching. Such an education will not only take a student to a higher platform but also help him take his society and the nation forward. It is important that this awareness cuts across all and reaches far and wide.

There isn't a fixed format for teaching through innovation. Challenges are all around us and so are ideas. Thinking "out of the box" brings about ideas; ideas aid creativity; creativity connects different facets of knowledge; knowledge gives strength.

Given here are some activities done at our school to make teaching and learning fun and effective.

"To be a Mayan child"

While studying Mayan Civilisation, to arouse curiosity and give knowledge about Mayan childhood, the students of class 5 were organised into small groups and given a set of cards representing simple images connected to aspects of Mayan childhood. Children took turns to be 'Kim' (a Mayan boy) and tested the other's ability to observe and recall the order of the cards. The game made the children familiar with the images. So, they were later able to make quick connections between the image and the historical detail. The factual knowledge was recorded in a lift-the-flap format and the children recalled facts using a visual clue. Once the knowledge was embedded, they were able to reflect upon aspects of what it might have been like to be a Mayan child 2000 years ago!



"Around the world in 80 minutes"

As an extension of an English lesson where students studied about an audio guide tour of Taj Mahal, the 7th graders, dividing themselves into 7 groups, pre-

pared an around the world cultural extravaganza through a well-planned audio guide tour. As a first step, they heard Museum Directors speak, noted the formal tone and the factual details captured in such descriptions before scripting their own audio clippings for a few main cultures in each continent. After recording their scripts they made an audio presentation to students and teachers along with some charts, maps and artefacts. The classroom was rearranged like a museum with 7 locations. An information desk was set up to kick start the audio guide trail. Visitors got their passport booklets stamped before listening to the presentations through a headphone. Their valuable comments were compiled and discussed later. This novel, well planned activity, was their original creation. They had honed their researching, speaking and organizing skills. They virtually stole the show.



“Cell Jelly”

A Science lesson on animal cells for 6th graders. To understand the concept better, the students were helped to make an edible model of an animal cell and eat it too. They used pineapple jelly to represent cytoplasm in the cell, marshmallows of different colours to create the Endoplasmic Reticulum, Mitochondria and Golgi bodies, M&M’s for Ribosomes, and a pear cut neatly for the Nucleus. This hands-on activity using known food items helped them register the names of the cell organelles easily and also get an idea of the relative sizes of each organelle and their

positions. Most of all they enjoyed eating it at the end.



“Word bands”

Yet another innovative game to check if students of grade 6 knew the meaning of a couple of complex words.

The chosen words were printed on headbands and tied around all the students’ foreheads. Everyone was able to see all the words except the one on his/her own forehead. The goal was to help a child guess the word written on his forehead by others giving him as many clues as possible. It was amazing to see the different ways in which the clues were being given. The game also turned into a team building session since children were trying hard to get their classmates to find the word. The students were pleasantly surprised to find all the words in the comprehension passage that they were given the following day. It also gave them the confidence to work independently on the passage.

Fifth graders were introduced to “fractions” through a video posted by their teacher (that’s me!) on the school’s intranet website. With children being able to access this video from their home, each one of them had enough time to view the video many times over to understand the concept. They shared their comments and understandings online with me and their



peers too. This is a part of the “flipped classroom” methodology adopted at school for all classes from grade 5, where children are introduced to a concept by their teachers through online audio/video/presentations even before the topic is taken up in class, so that, they have already set the bar for the discussion to progress from basic to advanced level in a short period of time. They use these videos for revising during tests as well. One of these videos can be viewed at:

<http://www.youtube.com/watch?v=Xa2MFPT3bOo&list=UUfVik3oDDMYFoYKD2X7rv7Q&index=1>



SUDHA MAHESH is the Founder of Headstart School, Chennai. Started 17 years ago, the school has now grown to become HLC International, affiliated to the University of Cambridge. Sudha has been in the teaching profession for the past 36 years and has worked in esteemed schools like Vidya Mandir, Chennai, Valley school and Mallya Aditi International School, Bangalore. She conducts workshops for teachers regularly on innovative teaching methods, ECE and Mathematics. She has authored Mathematics books for Cambridge University Press, U.K. She has also been associated with Scholastic, Tulika Publications and Karadi Tales in the field of publications related to children and as a resource person with Wipro’s Applying Thoughts in Education, TN Forces as well as with Organisation of Muslim Educational Institutes Association of Tamilnadu. She can be contacted at sudha@headstartschool.org